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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,751	06/27/2003	Hermann Boss	M1211/20011	7334
3000	7590	03/02/2005	EXAMINER	
CAESAR, RIVISE, BERNSTEIN, COHEN & POKOTILOW, LTD. 11TH FLOOR, SEVEN PENN CENTER 1635 MARKET STREET PHILADELPHIA, PA 19103-2212			NATALINI, JEFF WILLIAM	
			ART UNIT	PAPER NUMBER
			2858	

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

11-A

Office Action Summary	Application No. 10/607,751	Applicant(s) BOSS ET AL.	
	Examiner Jeff Natalini	Art Unit 2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 28 December 2004.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-23 is/are pending in the application.

 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-4, 7-10, 13-16 and 19-21 is/are rejected.

7) ☒ Claim(s) 5, 6, 11, 12, 17 and 18 is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

 a) ☒ All b) ☐ Some * c) ☐ None of:

 1. ☒ Certified copies of the priority documents have been received.

 2. ☐ Certified copies of the priority documents have been received in Application No. _____.

 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	6) <input type="checkbox"/> Other: _____

Claim Objections

1. Claims 4, 10, 15 and 17-19 are objected to because of the following informalities:
 - In regard to claims 4 and 10, the addition of claim 4 and 10 to claims 1 and 7 respectively, seems to contradict the amendment of "inputting an unmodulated sine signal" into the electronic object, as the frequency of the input sine signal is deviated in claims 4 and 10.
 - In regard to claims 15 and 17-18, which depend from claim 13, and therefore lack antecedent basis for sine power level and noise power level. These claims will be examined accordingly as though they were dependent upon claim 14, where these levels are introduced.
 - In regard to claim 19, there is no antecedent basis for the statement "prior to taking the average" as this is not claimed until claim 20, this claim will be examined as if that phrase is removed from the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (EP0296822) in view of Boss (DE 4122189).

In regard to claims 1, 2, 4, 7, 8, and 10 Yoshida et al. discloses a procedure/apparatus to determine noise of an electronic object (pg 2 line 6-7; in this case the object is a demodulator of a digital transmission system) comprising: inputting a signal into the electronic object (pg 2 col 16-19); measuring an associated power level with the signal power level and the noise power level determined separately (pg 2 line 19-22) wherein, a sample value is determined by taking samples of the signal power level (pg 2 line 37-39) and taking the arithmetical average of the samples and subsequent squaring of the average of the samples (pg 2 line 41-42; (fig 1 (2,3,4))).

Yoshida et al. lacks wherein the signal inputted is a unmodulated sine wave and wherein a level meter determines the power level as well as having from the unmodulated sine wave prior to averaging, a revision and deviation of frequency from the frequency of an local oscillator are carried out.

Boss discloses a unmodulated sinusoid input (directly from sinus generator) into an electronic object (pg 5 last paragraph continued to pg 6), uses a level meter for measuring power (pg 9 first full paragraph on the page) and is able to carry out prior to averaging (if the 'input' signal is changed it would have to be prior to averaging) a revision and deviation of the input sine frequency from the frequency of a local oscillator (last paragraph pg 10 see also claims 2 and 3).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Yoshida et al. to input a unmodulated sinusoid input into the electric object, use a level meter for measuring power, and means to carry out a revision and deviation of frequency from the frequency of a local oscillator as taught by Boss in order to have a very accurate measurement (pg 6, paragraph carried over from pg 5) and so that noise factor can be calculated in the known manner (pg 9 bottom).

In regard to claims 3 and 9, Yoshida et al. discloses wherein the noise power level is obtained by taking an arithmetic average of the amount squared of the samples (fig 1 (5, 6)) and the subtraction (fig 1 (7)) of the sine power level (fig 1 (2,3,4); pg 3 line 42-43).

4. Claims 13-16 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (EP0296822) in view of Kasten (6114858).

In regard to claims 13, 14 and 19, Yoshida et al. discloses a procedure/apparatus to determine noise of an electronic object (pg 2 line 6-7; in this case the object is a demodulator of a digital transmission system) comprising: inputting a signal into the electronic object (pg 2 col 16-19); measuring an associated power level with the signal power level and the noise power level determined separately (pg 2 line 19-22) wherein, an estimation (device) and revision (device) of a deviation of the frequency of the input signal from the frequency of an local oscillator are carried out (pg 7 line 54 - pg 8 line 9;

the difference between estimation and detection is not patentably distinguishable and will be discussed in the response section)

Yoshida et al. lacks wherein the signal inputted is a sine wave and wherein a level meter determines the power level as well as where the local oscillator is specifically located inside of the level meter.

Kasten teaches driving a device under test with a sine wave in order to measure the noise factor of the device (abstract). The use of a level meter to measure power of a signal under test is known in the art (applicant also admits to this in the specification pg 1 line 9).

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Yoshida et al. to use a level meter for determining power as well as input a sine wave into the electronic object as taught by Kasten in order to provide at least two test signal frequency bands (col 3 line 50-54).

MPEP 2144.04 VI C *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) stating rearrangement of parts, describes that mere shifting of the position of a device would not make it patentable unless the operation of the device would have been modified as would be known in the art.

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Yoshida et al. to incorporate this in the detection (level detector) part of the device.

In regard to claims 15 and 20, Yoshida et al. discloses wherein a sample value is determined by taking samples of the signal power level (pg 2 line 37-39)

and taking the arithmetical average of the samples and subsequent squaring of the average of the samples (pg 2 line 41-42; (fig 1 (2,3,4))).

In regard to claims 16 and 21, Yoshida et al. discloses wherein the noise power level is obtained by taking an arithmetic average of the amount squared of the samples (fig 1 (5, 6)) and the subtraction (fig 1 (7)) of the sine power level (fig 1 (2,3,4); pg 3 line 42-43).

Allowable Subject Matter

5. Claims 5, 6, 11, 12, 17, 18, 22, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. See arguments filed 12/28/04, pages 12-15.

Response to Arguments

6. Response to the arguments filed with the amendments on 12/28/04 is as follows:

In regard to claims 1 and 7, there is a new ground of rejection based on the amendment to the claims, therefore these arguments are moot.

In regard to claims 4 and 10, these apply mostly to new claims 13 and 19, which are the independent claims that most of dependent claims 4 and 10 were put into with new dependency chains (claim 2 and 8 for which they used to depend from are still depend claims), Yoshida discloses a VCO which will change the modulation on the signal thus changing the inputted signal for averaging and measurement and the C/N

ratio depends from the frequency of the input signal, thus reading on the applicants claim language. Also argued is the difference between detection and estimation, there is always a percent error when estimating, measuring, or detecting signals, (though in the art estimation is considered to be the least accurate- greater possibility of errors) but would not produce any patentable differences as they are all in fact estimates of the signal.

Applicant's arguments, see arguments/remarks pgs 12-15, filed 12/28/04, with respect to claims 5, 6, 11, and 12 have been fully considered and are persuasive. The 103a rejection of claims 5, 6, 11, and 12 has been withdrawn.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2858

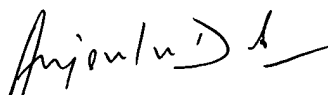
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Natalini whose telephone number is 571-272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jeff Natalini


ANJAN DEB
PRIMARY EXAMINER